

8. A method of treating type 1 diabetes in a mammal at risk of developing type 1 diabetes, which method comprises administering to a mammal a pharmaceutical composition comprising an effective amount of a hormonally inactive insulin analogue selected from the group consisting of desA1 human insulin, des(A1-A2) human insulin, des(A1-A3) human insulin, desA21 human insulin, des(B1-B5) human insulin, des(B1-B6) human insulin, des(B24-B30) human insulin, des(B25-B30) human insulin, Gly^{A2} human insulin, Ala^{A2} human insulin, Nle^{A2} human insulin, Thr^{A2} human insulin, Pro^{A2} human insulin, D-allo Ile^{A2} human insulin, Nva^{A3} human insulin, Nle^{A3} human insulin, Leu^{A3} human insulin, Val^{A2}, Ile^{A3} human insulin, Abu^{A2}, Abu^{A3} human insulin, Gly^{A2}, Gly^{A3} human insulin, D-Cys^{A6} human insulin, D-Cys^{A6}, D-Cys^{A11} human insulin, Ser^{A6}, Ser^{A11}, des(A8-A10) human insulin, D-Cys^{A7} human insulin, D-Cys^{A11} human insulin, Leu^{A19} human insulin, Gly^{B6} human insulin, Glu^{B12} human insulin, Asn^{B12} human insulin, Phe^{B12} human insulin, D-Ala^{B12} human insulin, and Asp^{B25} human insulin.

9. The method of claim 8, wherein the mammal is a human being.

10. The method of claim 8, wherein the *in vitro* activity of the insulin analogue is less than 7% of the activity of human insulin.

11. The method of claim 8, wherein the insulin analogue is Asp^{B25} human insulin.

12. A method of ameliorating type 1 diabetes in a mammal, comprising administering to the mammal an effective amount of a hormonally inactive insulin analogue selected from the group consisting of: desA1 human insulin, des(A1-A2) human insulin, des(A1-A3) human insulin, desA21 human insulin, des(B1-B5) human insulin, des(B1-B6) human insulin, des(B24-B30) human insulin, des(B25-B30) human insulin, Gly^{A2} human insulin, Ala^{A2} human insulin, Nle^{A2} human insulin, Thr^{A2} human insulin, Pro^{A2} human insulin, D-allo Ile^{A2} human insulin, Nva^{A3} human insulin, Nle^{A3} human insulin, Leu^{A3} human insulin, Val^{A2}, Ile^{A3} human insulin, Abu^{A2}, Abu^{A3} human insulin, Gly^{A2}, Gly^{A3} human insulin, D-Cys^{A6} human insulin, D-Cys^{A6}, D-Cys^{A11} human insulin, Ser^{A6}, Ser^{A11}, des(A8-A10) human insulin, D-Cys^{A7} human insulin, D-Cys^{A11} human insulin, Leu^{A19} human insulin, Gly^{B6} human insulin, Glu^{B12} human insulin, Asn^{B12} human insulin, Phe^{B12} human insulin, D-Ala^{B12} human insulin, and Asp^{B25} human insulin.

13. The method of claim 12 wherein the mammal is a human being.

A2 14. The method of claim 12 wherein the *in vitro* activity of the insulin analogue is less than 7% of the activity of human insulin.

15. The method of claim 14 wherein the insulin analogue is Asp^{B25} human insulin.

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